

$$\{(1, 2), (-3, 0), (5, 4), (-1, 2)\}$$

Inverse - switch x and y

$$\{(2, 1), (0, -3), (4, 5), (2, -1)\}$$

Inverse not a function

$$y = \frac{1}{2}x - 5$$

Linear
Function

Inverse $x = \frac{1}{2}y - 5$

Solve for y.

Parabola

$$y = x^2 - 6$$

Quadratic
Function

x	y
-3	
-2	
-1	
0	
1	

$$x = y^2 - 6$$

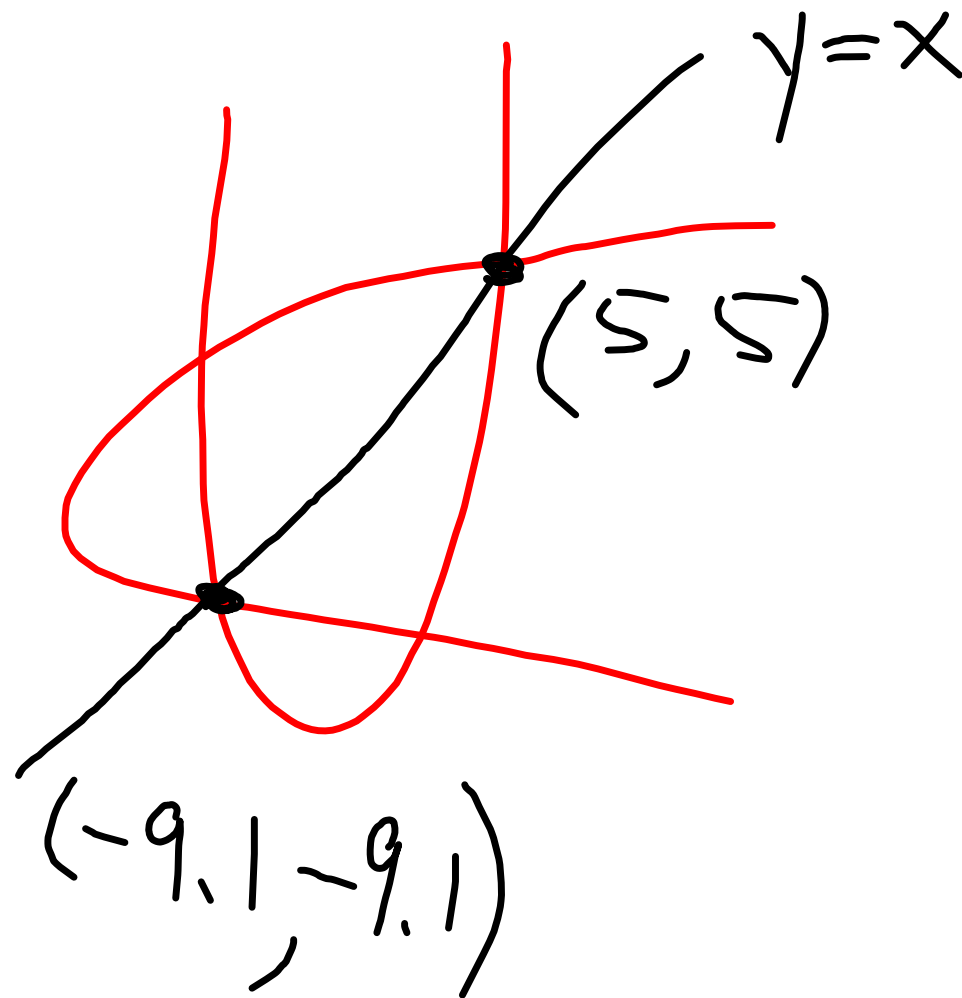
Solve for y.

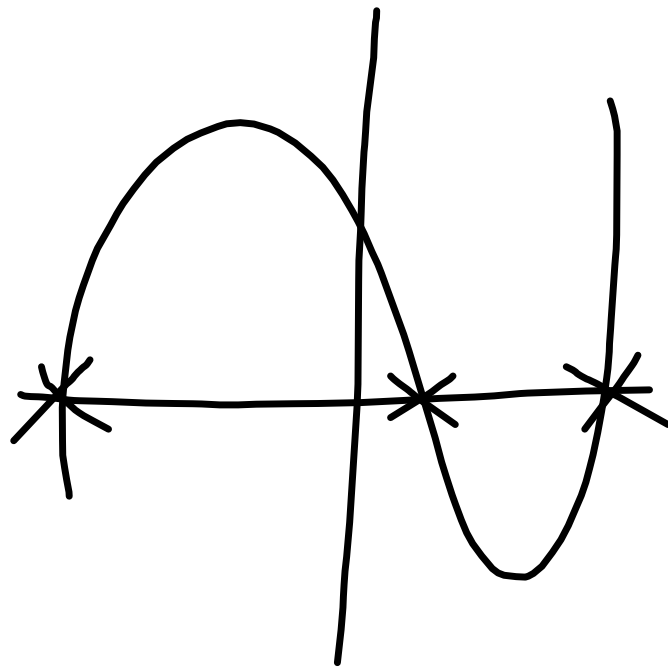
y	x
-2	
-1	
0	
1	
2	

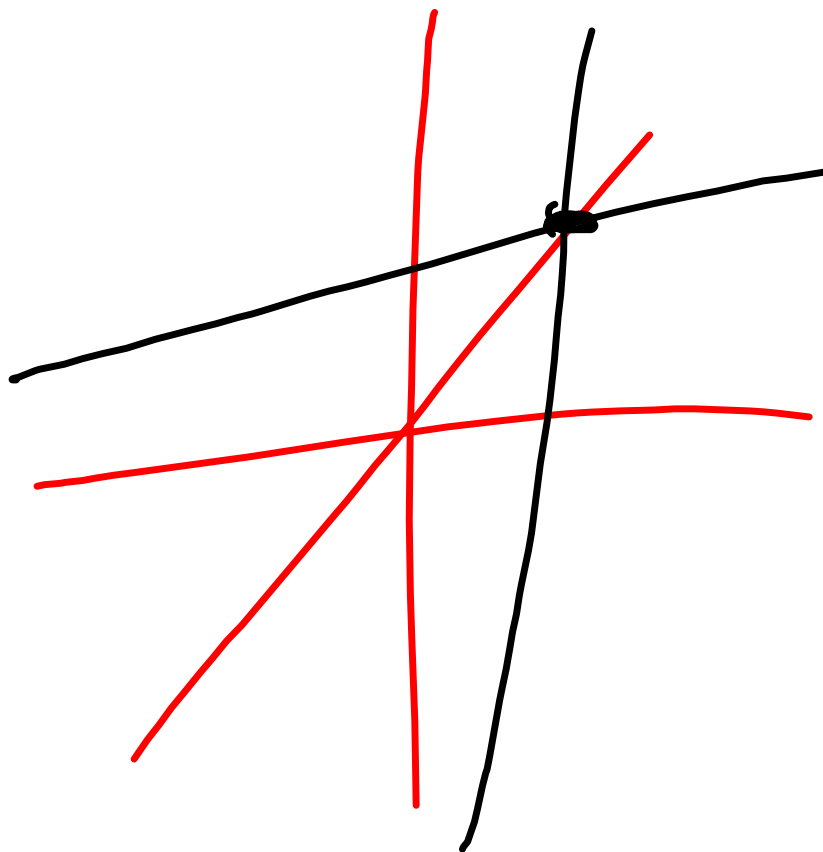
Graph $y=x$
on both

HW

- ① What was the inverse of the line?
- ② Is every line's inverse a function?
- ③ What was the inverse of the quadratic function?
- ④ Was it a function?
- ⑤ Why did I make you graph $y = x^2$?







Ryan

$$y = (x - 3)^2$$

Inverse

$$\pm \sqrt{x} = \sqrt{(y - 3)^2}$$

$$x^2 = 25$$

$$x = \pm 5$$

$$\pm \sqrt{x} = y - 3$$

$$\pm \sqrt{x} + 3 = y$$

$$y = (x+5)^2$$

Inverse

$$\pm\sqrt{x-5} = y$$

$$y = x^2 - 3$$

$$y = \pm\sqrt{x+3}$$

$$y = (x+2)^2$$

$$y = \pm\sqrt{x} - 2$$

$$y = x^2 + 3$$

$$y = \pm\sqrt{x-3}$$

$$y = x^2 - 4$$

$$y = \pm\sqrt{x+4}$$

$$y = x^3 - 3x^2$$

max
&
min.

